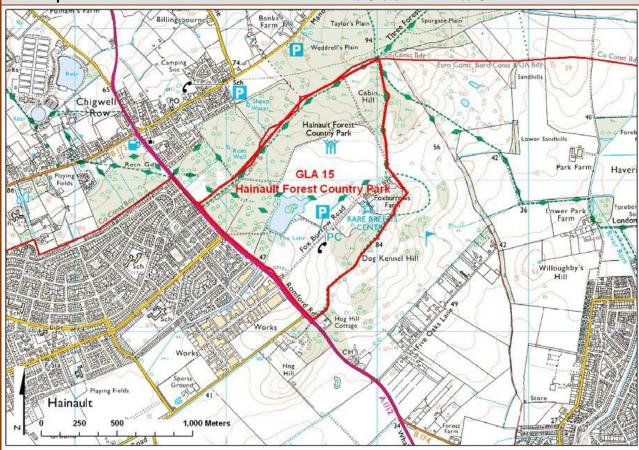
| GLA 15 Hainault Forest Country Park                          |                                                                                                                     |  |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--|
| Grid Reference: TQ 4751 9294                                 | Site Type: Natural exposure                                                                                         |  |
| Site Area (hectares): 119.45                                 | Current use: Recreational land                                                                                      |  |
| Site ownership: London Borough of Redbridge                  | Borough: London Borough of Redbridge                                                                                |  |
| Field surveyor: Joanna Brayson<br>Latest visit: Ruth Siddall | Date: May 2011<br>Date: May 2019                                                                                    |  |
| Current geological designation: LIGS                         | Other designation: Metropolitan (Hainault Forest) and Borough Grade I (Hainault Country Park and Golf Course) SINCs |  |
| Site Map                                                     | OS Topography © Crown Copyright                                                                                     |  |



| Stratigraphy and Rock Types            |                                                                                                                                                                                                                                                                           |  |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Time Unit: Quaternary                  | Rock Unit: Head                                                                                                                                                                                                                                                           |  |
| Rock Type: Clay, silt, sand and gravel | Details: Polymictic deposit comprising poorly sorted and poorly stratified deposits formed mostly by solifluction and/or hill wash and soil creep.                                                                                                                        |  |
| Time Unit: Quaternary                  | Rock Unit: Lowestoft Formation, Albion Glacigenic Group                                                                                                                                                                                                                   |  |
| Rock Type: Till                        | Details: Chalky till, together with outwash sands and gravels, silts and clays. The till is characterised by its chalk and flint content.                                                                                                                                 |  |
| Time Unit: Eocene                      | Rock Unit: Bagshot Formation, Bracklesham Group                                                                                                                                                                                                                           |  |
| Rock Type: Sand, silt and clay         | Details: Pale yellow-brown to pale grey or white, locally orange or crimson, fine- to coarse-grained sand that is frequently micaceous and locally clayey, with sparse glauconite and sparse seams of gravel. The sands are commonly cross-bedded but some are laminated. |  |
| Time Unit: Eocene                      | Rock Unit: London Clay Formation Claygate Member at top, Thames Group                                                                                                                                                                                                     |  |
| Rock Type: Clay, silt, sand            | Details: Bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate                                          |  |

4

concretions ('cementstone nodules') and disseminated pyrite. Claygate Member consists of thin alternations of clays, silts and fine-grained sand

## **Site Description**

**Geodiversity value** 

Large public park showing the geomorphology of Claygate Member capped London Clay. Cabin Hill offers a large variety of rock types. At the base, in the valley between Cabin Hill and Dog Kennel Hill, the lake lies at the lowest point, about 50m OD, in London Clay, surrounded by 'head' which extends up the small streams that run into the lake. On the lower part of the hill the London Clay is overlain by 'Glacial Gravel' which in turn is overlain by till deposited during the Anglian Glaciation. Toward the top of the hill, the top of the London Clay Formation remains briefly unburied by the gravel and till but this is the sandier facies known as the Claygate Member. Above this the variable sands and gravels of the Bagshot Formation cap the hill with two very small patches of Pre-Anglian Stanmore Gravel lying at the summit (both in Essex).

| London Clay Formation rema                       | ed during the Anglian Glaciation. Toward the top of the hill, the top of ains briefly unburied by the gravel and till but this is the sandier facies ove this the variable sands and gravels of the Bagshot Formation cap of Pre-Anglian Stanmore Gravel lying at the summit (both in Essex).                                                                                                    | s known |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Assessment of Site Valu                          | le e                                                                                                                                                                                                                                                                                                                                                                                             |         |
| Geodiversity topic: Geomo                        | rphology; Lithostratigraphy.                                                                                                                                                                                                                                                                                                                                                                     |         |
| Access and Safety                                |                                                                                                                                                                                                                                                                                                                                                                                                  |         |
| Aspect                                           | Description                                                                                                                                                                                                                                                                                                                                                                                      |         |
| Safety of access                                 | Large open space with footpaths, some suitable for wheelchairs.                                                                                                                                                                                                                                                                                                                                  |         |
| Safety of exposure                               | No specific exposure.                                                                                                                                                                                                                                                                                                                                                                            |         |
| Permission to visit                              | Open access, check with park rangers before group visits.                                                                                                                                                                                                                                                                                                                                        |         |
| Current condition                                | Well maintained as open space.                                                                                                                                                                                                                                                                                                                                                                   |         |
| Current conflicting activities                   | None.                                                                                                                                                                                                                                                                                                                                                                                            |         |
| Restricting conditions                           | None.                                                                                                                                                                                                                                                                                                                                                                                            |         |
| Nature of exposure                               | No specific exposure – geomorphology.                                                                                                                                                                                                                                                                                                                                                            |         |
| Culture, Heritage & Econor                       | nic                                                                                                                                                                                                                                                                                                                                                                                              |         |
| Aspect                                           | Description                                                                                                                                                                                                                                                                                                                                                                                      | Rating  |
| Historic, archaeological & literary associations | None.                                                                                                                                                                                                                                                                                                                                                                                            | 0       |
| Aesthetic landscape                              | Valuable open space.                                                                                                                                                                                                                                                                                                                                                                             | 8       |
| History of Earth Sciences                        | Weathering and erosion of London Clay Formation / Claygate Member to current landscape.                                                                                                                                                                                                                                                                                                          | 4       |
| Economic geology                                 | None.                                                                                                                                                                                                                                                                                                                                                                                            | 0       |
| GeoScientific Merit                              |                                                                                                                                                                                                                                                                                                                                                                                                  |         |
| Geomorphology                                    | Landscape in relation to underlying geology.                                                                                                                                                                                                                                                                                                                                                     | 6       |
| Sedimentology                                    | Underlying geology.                                                                                                                                                                                                                                                                                                                                                                              | 4       |
| Palaeontology                                    | None.                                                                                                                                                                                                                                                                                                                                                                                            | 0       |
| Igneous/mineral/<br>Metamorphic Geology          | None.                                                                                                                                                                                                                                                                                                                                                                                            | 0       |
| Structural Geology                               | None.                                                                                                                                                                                                                                                                                                                                                                                            | 0       |
| Lithostratigraphy                                | Relationship between the London Clay and the Claygate Member.                                                                                                                                                                                                                                                                                                                                    | 6       |
| Potential use                                    | Higher further education; school education; on-site interpretation; on-site geotrail.                                                                                                                                                                                                                                                                                                            |         |
| Fragility                                        | Weathering/erosion; natural overgrowing.                                                                                                                                                                                                                                                                                                                                                         |         |
| Current Site Value                               |                                                                                                                                                                                                                                                                                                                                                                                                  |         |
| Community                                        | Site well used by local people for dog walking, jogging, family outings etc. Large car park, and well sign-posted walks to the summit etc. and around the lake. Café and a reasonably large children's zoo. Maps and information boards on the woodlands but nothing on the geology. The Redbridge webpage:  www.redbridge.gov.uk/leisure-sport-and-the-arts/parks/hainault-forest-country-park/ | 10      |
| Education                                        |                                                                                                                                                                                                                                                                                                                                                                                                  | 4       |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                  |         |

LIGS: Good feature in country park very well used by local community. Potential to add

information on geology on boards and/or website

## **GLA 15 Hainault Forest Country Park**



View towards London



A general view of the wooded Cabin Hill summit area – the colour of the clay-rich sands is typical of Claygate Member



Bagshot Sand at the summit of Cabin Hill

Photos: Ruth Siddall, May 2019